

SYSTEM AND METHOD FOR REDUNDANT PATH CONNECTIONS IN DIGITAL COMMUNICATIONS NETWORK

ABSTRACT OF THE INVENTION

5 A system and method for providing redundancy in an
integrated circuit (IC) relay device has been disclosed. The relay device
accepts communications on a first and second receive path. The relay
device monitors communications on both the receive paths, and selects a
path having a high degree of integrity. Likewise, the relay selectively
10 supplies communications on a first and second transmit path. The relay
device selects the transmit path having the proper measure of
communication integrity. Communications integrity can be based upon
internally monitored criteria such as bit error rate, synchronization, clock
signals, and forward error correction. Alternately, the integrity is
15 determined external to the relay, and the relay responds to external
switch commands.